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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,790	03/30/2001	Ashok N. Rudrapatna	RUDRAPATNA 12-2	4989

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EXAMINER	
TRAN, CONGVAN	

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,790	RUDRAPATNA ET AL.	
	Examiner	Art Unit	
	CongVan Tran	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 19-24, 25-26 and 43-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Komoritani (JP 09163458 A).

Regarding claims 1-2, 19-24, 25-26 and 43-48, Anzil discloses a technique for mobile wireless device location, comprising: determining at least one of speed, location or direction information for a mobile device (see attached); using said speed and at least one of, location or direction information as a parameter to control a data rate for signal transmission from one or more base stations of a wireless system servicing said mobile device (see attached).

3. Claims 1-2, 19-24, 25-26 and 43-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Anzil (6,449,485).

Regarding claims 1-2, 19-24, 25-26 and 43-48, Anzil discloses a technique for mobile wireless device location, comprising: determining at least one of speed, location or direction information for a mobile device (see abstract fig.1 and its description); using said speed and at least one of, location or direction information as a parameter to

control a data rate for signal transmission from one or more base stations of a wireless system servicing said mobile device (see abstract, fig.1, col.5, lines 21-49 and its description).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3-8, 10-13, 16-18, and 27-32, 34-37, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anzil (6,449,485) in view of Ejzak et al. (6,069,883).

Regarding claims 3, 27 Anzil discloses, all the subject matters described in rejected claim 1, except for at least one of speed, location or direction information is used to determine what signal power a base station should use in its transmissions to said mobile device. However, Ejzak et al. teaches at least one of speed, location or direction information (location) is used to determine what signal power a base station should use in its transmissions to said mobile device (abstract, fig. 1, col. 3 line 44 thru col. 4 line 55). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the Anzil with the teaching of Ejzak et al. location to determine the power the base station uses in its transmission to mobile station in order to provide control transmission power to meet the data rate when serving a moving mobile device.

Regarding claims 4, 28, Ejzak et al. further discloses, wherein said transmission signal power is at least a required signal power to transmit a signal to said mobile device (abstract, fig. 1, col. 3 line 44 thru col. 4 line 55).

Regarding claims 5, 29, Ejzak et al. further discloses, wherein said at least one of speed, location or direction information is used to control the transmission of a first base station toward which said mobile station is moving by delaying transmission of data from said first base station to said mobile device until said mobile device is located close enough to said base station such that a required signal power for transmission to said mobile device is less than or equal to a threshold signal power (col. 8 line 58 thru col. 9 line 53).

Regarding claims 6, 30, Ejzak et al. further discloses the method claim 5 further comprising transmitting data from said first base station to said mobile device at a first data rate using said required signal power and transmitting data at a second data rate using a signal power greater than said required signal power (col. 8 line 58 thru col. 9 line 53).

Regarding claims 7, 31, Ejzak et al. further discloses a method of claim 6 further comprising increasing a rate of data transmission from said first data rate to said second data rate when said transmission signal power is greater than said required signal power (col. 8 line 58 thru col. 11 line 3).

Regarding claims 8, 32, Ejzak et al. further discloses the method claim 6 further comprising transmitting data from said first base station to said mobile device at said second data rate when said mobile device is moving away from said first base station

cell and toward a second base station which has allocated at least a predefined heavy load amount of its total RF signal power (abstract, fig. 5, col. 8 line 58 thru col. 10 line 64).

Regarding claims 10, 34 Anzil discloses, all the subject matters described in rejected claim 1, except for a base station servicing said mobile device has allocated at least a predefined heavy load amount of its total RF signal power.

Ajzak et al. teaches a base station servicing said mobile device has allocated at least a predefined heavy load amount of its total RF signal power (fig. 4-5, col. 1 line 47 thru col. 2 line 67, col. 3 line 44 thru col. 4 line 57, col. 9 line 22 thru col. 11 line 45). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil system with the teaching of Ejzak et al. of a base station has allocated at least a predefined heavy load amount of the RF signal power in order to control the data rate to a mobile station.

Regarding claims 11, 35, Anzil discloses, all the subject matters described in rejected claim 1, except for a base station servicing said mobile device is more heavily loaded than a base station region to which said mobile device is moving.

Ajzak et al. teaches a base station servicing said mobile device is more heavily loaded than a base station region to which said mobile device is moving (fig. 4-5, col. 1 line 47 thru col. 2 line 67, col. 3 line 44 thru col. 4 line 57, col. 9 line 22 thru col. 11 line 45). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil system with the teaching of Ejzak et al. of a base station servicing said mobile device is more heavily loaded than a base station

region to which said mobile device is moving in order to control the data rate to a mobile station.

Regarding claims 12, 36, Anzil discloses, all the subject matters described in rejected claim 1, except for delaying transmission of data to said mobile device when it is not in the process of receiving a data transmission and when a base station assigned to transmit to said mobile device has allocated at least a predefined heavy load amount of its total RF signal power and a neighboring base station has allocated not more than a predefined light load amount of the total RF signal power.

Ajzak et al. teaches delaying transmission of data to said mobile device when it is not in the process of receiving a data transmission and when a base station assigned to transmit to said mobile device has allocated at least a predefined heavy load amount of its total RF signal power and a neighboring base station has allocated not more than a predefined light load amount of the total RF signal power (col. 7 line 47 thru col. 10 line 64). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil system with the teaching of Ajzak et al. of delaying transmission of data to said mobile device in order to avoid the data lost during handoff.

Regarding claims 13, 37, Ajzak et al. further discloses the method of claim 12 further comprising providing a transmission by a neighboring base station to said mobile device when said mobile device is in a handoff region between said base stations (col. 8 line 58 thru col. 10 line 64).

Regarding claims 16-18, 40-42, Anzil discloses, all the subject matters described in rejected claim 1, except for delaying a data transmission from a base station to said mobile device when said mobile device is moving towards a known coverage hole.

Ajzak et al. teaches the method comprising delaying a data transmission from a base station to said mobile device when said mobile device is moving towards a known coverage hole (col. 7 line 47 thru col. 10 line 64). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil system with the teaching of Ajzak et al. of delaying transmission of data to said mobile device in order to avoid the data lost during handoff.

6. Claims 9, 14-15, 33 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anzil (6,449,485) in view of (6,618,596) and in further view Ejzak et al. (6,069,883).

Regarding claims 9, 33 Anzil discloses, all the subject matters described in rejected claim 1, Uchida discloses controlling said base stations such that neighboring base stations use a soft handoff during a data transmission when said mobile device is in a handoff region and is entering a cell of a base station (abstract, fig. 1, col. 3 lines 49-61). However, Uchida does not specifically discloses mobile device is entering a cell of a base station having allocated not more than a predefined light load amount of the total RF signal power.

Ejzak et al. teaches mobile device is entering a cell of a base station having allocated not more than a predefined light load amount of the total RF signal power (fig.

4-16, col. 1 line 47 thru col. 2 line 67, col. 3 line 44 thru col. 4 line 57, col. 9 line 22 thru col. 11 line 45). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil, Uchida system with the teaching of Ejzak et al. of a base station having load amount of the RF signal power in order to control the data rate to a mobile station.

Regarding claims 14, 38, Anzil discloses, all the subject matters described in rejected claim 1, Uchida discloses comprising providing transmission of data to said mobile device by a neighboring base station when said mobile device is in a handoff region between a base station transmitting to it (fig. 1, col. 3 line 49 thru col. 4 line 40). However, Uchida does not specifically disclose neighboring base station has allocated not more than a predefined light load amount of the total RF signal power.

Ajzak et al. teaches neighboring base station has allocated not more than a predefined light load amount of the total RF signal power (fig. 1-8, col. 4 line 25 thru col. 11 line 19). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil, Uchida system with the teaching of Ajzak et al. of allocated load amount of the signal power in order to avoid the data lost during handoff.

Regarding claims 15, 39, Anzil and Uchida discloses, all the subject matters described in rejected claims 1-2 and 14, except for providing a transmission signal power greater than a required signal power from a base station to said mobile device when said mobile device is moving towards a known coverage hole.

Ajzak et al. teaches providing a transmission signal power greater than a required signal power from a base station to said mobile device when said mobile device is moving towards a known coverage hole (abstract, fig. 1, col. 4 lines 25-57, col. 8 line18 thru col. 10 line 15). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Anzil and Uchida system with the teaching of Ajzak et al. of transmission signal power in order to avoid the data lost during handoff.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CongVan Tran whose telephone number is 703-305-4024. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CongVan Tran
Examiner
Art Unit 2683

TCU
Dec. 30, 2004